

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
24 June 2004 (24.06.2004)

PCT

(10) International Publication Number
WO 2004/052099 A3

(51) International Patent Classification⁷: A01N 25/04, 25/10

(21) International Application Number: PCT/GB2003/005291

(22) International Filing Date: 5 December 2003 (05.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 0228537.7 6 December 2002 (06.12.2002) GB

(71) Applicant (for all designated States except US): SYNGENTA LIMITED [GB/GB]; European Regional Centre, Priestley Road, Surrey Research Park, Guildford, Surrey GU2 7YH (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HEMING, Alexander, Mark [GB/GB]; Syngenta Limited, Jealott's Hill International Research Station, Bracknell, Berks RG42 6EY (GB). SHIRLEY, Ian, Malcolm [GB/GB]; Syngenta Limited, Jealott's Hill International Research Centre, Bracknell, Berks RG42 6EY (GB). WINN, Peter, David [GB/GB]; Syngenta Limited, Jealott's Hill International Research Centre, Bracknell, Berks RG42 6EY (GB).

(74) Agents: RICKS, Michael, James et al.; Intellectual Property Department, Syngenta Limited, P.O. Box 3538, Jealott's Hill International Research Centre, Bracknell, Berks RG42 6YA (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 16 September 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/052099 A3

(54) Title: PARTICULATE SUSPENSIONS

(57) Abstract: The stability of a particulate suspension comprising an aqueous phase containing substantially no miscible organic solvent having suspended therein an agrochemical solid substantially insoluble in said aqueous phase is enhanced by (i) forming a polymeric stabiliser having a hydrophilic moiety and a hydrophobic moiety by polymerising a plurality of vinylic monomers, not being exclusively vinylic esters or their hydrolysed products, at least some of which contain functional groups capable of undergoing cross-linking reactions and (ii) reacting said polymeric stabiliser with one or more substances contained (dissolved or suspended) in the aqueous phase capable of undergoing a cross-linking reaction with said functional groups, wherein the ratio by weight of (a) the polymeric stabiliser prior to cross-linking to (b) the suspended agrochemical is less than 1 part of polymeric stabiliser per 5 parts of suspended agrochemical.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/05291

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 A01N25/04 A01N25/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N B01F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 262 152 B1 (FRYD MICHAEL ET AL) 17 July 2001 (2001-07-17) cited in the application column 1, line 10 - line 56 column 2, line 11 - column 3, line 20 column 3, line 36 - column 6, line 33; claims -----	1-23
A	EP 0 007 731 A (ICI PLC) 6 February 1980 (1980-02-06) page 1 - page 2, line 33 page 3, line 29 - page 6, line 19 page 8, line 20 - line 26 -----	1-23



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

° Special categories of cited documents :

- °A° document defining the general state of the art which is not considered to be of particular relevance
- °E° earlier document but published on or after the international filing date
- °L° document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- °O° document referring to an oral disclosure, use, exhibition or other means
- °P° document published prior to the international filing date but later than the priority date claimed

°T° later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

°X° document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

°Y° document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

°&° document member of the same patent family

Date of the actual completion of the international search

9 July 2004

Date of mailing of the international search report

20/07/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax (+31-70) 340-3016

Authorized officer

Muellers, W

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 03/05291

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 6262152	B1 17-07-2001	AU	755162 B2	05-12-2002
		AU	6290199 A	26-04-2000
		CA	2341977 A1	13-04-2000
		CN	1322228 T	14-11-2001
		DE	69916094 D1	06-05-2004
		EP	1123358 A1	16-08-2001
		JP	2002526259 T	20-08-2002
		WO	0020520 A1	13-04-2000
EP 0007731	A 06-02-1980	AU	4907879 A	31-01-1980
		EP	0007731 A2	06-02-1980
		GB	2026341 A	06-02-1980
		JP	55021486 A	15-02-1980
		ZA	7903626 A	30-07-1980